CHAPTER 6

INTRODUCTION

Section 15.2-2223 of the Virginia Code requires a community to prepare "a plan for the physical development of the jurisdiction and the Governing Body shall adopt a Comprehensive Plan." This comprehensive long-range plan is intended to guide growth and development within the community, and includes analysis, recommendations regarding the environment and historic resources, land use, public facilities, and transportation. For example, the plan should identify:

- Areas for various types of public and private development and uses such as residential, business, industrial;
- A transportation system, including streets, highways, rail, airports, and other associated facilities;
- Community service facilities, such as fire and rescue, libraries, parks, schools, water and wastewater treatment;
- Historic and renewal/redevelopment areas, as applicable;
- Land areas needing special management, for example floodplain and wetland areas which provide surface and groundwater resources;
- Recommended facilities which need to be included in the Fauquier County Capital Improvements Program; and
- Areas and measures for the construction of affordable housing to meet the needs of current and future residents of all income levels in the locality considering the needs of the community.

Section 15.2.2230 of the same code requires the periodic review of the Comprehensive Plan, at a minimum of once every 5 years. The plans for Bealeton, Opal and Remington represent the third update since the original Countywide Comprehensive Plan of 1967. This plan revision was completed in a fundamentally different way. It represents the first plan in this area to involve local citizens from its inception, including citizen review of the assumptions, which founded that 1967 Plan. This fundamental review began in the summer of 2000 when the Fauquier County Board of Supervisors appointed the Bealeton, Opal and Remington Citizen Committee. In October of 2000, the Committee completed an orientation program and began an intensive effort of plan development. The Citizen formally voted on their draft Plan on May 5th 2002 and then transmitted it to the Fauquier County Planning Commission, which held Public Hearings on July 30th and August 27th 2002. Following a number of work sessions, the Planning Commission certified a modified Plan to the Board of Supervisors on September 26th 2002.

The principal <u>physical</u> change in plan direction and preference, <u>identified by the Citizen</u> <u>Committee and endorsed by the Planning Commission</u>, is that new development, within the specified service districts, should incorporate design characteristics of older, traditional patterns of development. While the community is justly proud of the technical quality of recent new development, these conventional cul-de-sac subdivisions tend to have monotonous lots, standardized housing design, limited pedestrian and vehicular access options, and poor linkage between neighborhoods, parks, open spaces, community facilities. While such approved conventional development may be completed as originally conceived, the County is determined to provide alternative development options more consistent with traditional design norms. An analysis of this historic pattern is provided below.

An equally important policy noted by the Planning Commission is the need to pace the rate of new development in the Bealeton, Opal and Remington Service Districts. To this end the Planning Commission recommends that a seven to ten year phasing plan be incorporated in all new residential developments in these Service Districts. Such a phasing plan would permit the County and the School Board to better match the creation of public facilities with the arrival of new residents.

Historic Settlement Patterns of Fauquier County Villages and Towns

Fauquier County, in common with other jurisdictions throughout Virginia, possesses a variety of long established settlements, each a unique product of geography, history and environment. However, all these settlements share certain essential features.

These settlements initially supported an agrarian economy with labor and basic commercial and educational services. The number of people involved in this support activity was not large, which thus limited settlement size and spatial frequency.

Close study of traditional settlements reveals a second common design feature. Each hamlet, village or small town invariably sought to "contain" or "hold" their segment of road by means of slight curves, the artful placement of buildings, overhead tree canopy and, in some cases, the construction of stone walls to limit views. Not surprisingly, most homes and other structures are conveniently located close to the road.

There may also be a psychological reason for the "closure" of views within rural settlements. Whereas the resident in a larger town or city, accustomed to the restricted focus of streets, discovers the open views of a park with welcome relief, in the country the psychological need is reversed. If wide-ranging views are a workaday norm, then closure of view within the hamlet or village offers a kind of psychological refuge from hard work in open fields. Of course such design closure is never total and the rear windows and back gardens of homes in a small settlement will still face open country.

The cross road settlements, villages and small towns of Fauquier County continue that traditional design form, which allows neighbors both private space and neighborly proximity to visit friends, walk to shops and services. Old and new residents of these communities wish to preserve the unique characteristics of their special place, and to build upon the existing historical pattern. The County and its residents intend to continue this centuries old historical pattern of walkable, mixed-use development, in an "updated" way to accommodate the automobile. Accordingly, the Bealeton, Opal and the Remington Service Districts will be designed according to the following guidelines, and note that the Zoning and Subdivision Ordinances will need to be refined for their implementation:

Bealeton, Opal Remington Service District Design Guidelines

A. General Town Center Design Principles. The Bealeton Town Center will be designed as a mixed-use commercial core surrounded by a mix of institutional and office uses and a mix of higher density residential uses. This Town Center will be surrounded by a well-defined edge of parks and natural areas. In addition, the Town Center will:

- a. **Massing:** The building mass of Town Center structures should maintain a consistent volumetric size and shape, as seen from fronting and surrounding streets. Particular care should be taken to choose roof pitches that are similar with those nearby. Commercial structures and apartments should generally be $2\frac{1}{2} 3\frac{1}{2}$ floors in height, while residential structures should generally be $1\frac{1}{2} 2$ $\frac{1}{2}$ floors in height. The building mass of public and institutional structures should be distinguishable from the others. The massing of adjacent dwellings in residential neighborhoods should vary in order to provide a wide range of housing options and create a more interesting streetscape.
- b. **Doors and Porches Carriage Lights:** These are perhaps the most important features in terms of an interesting streetscape. These features need to be chosen with special care for compatibility with the theme of the supporting structure and with those nearby. At least 50% Preferably the residential structures should have a front porch or covered entryway facing the street.

PHOTOS

The residences shown above and on the preceeding pages were constructed on Memorial Drive Leesburg between 1997 and 2001

3. Roads and Streets

a. **General:** Road, street and alley layouts should be designed in a hierarchical, rectilinear pattern – arterial, major/minor collector, and local access streets – with geometrical variation as required by traffic safety, the proposed use and design intentions. While any one road or street may extend to whatever functional length is necessary, these communities will be best served if the designer engineers streets to terminate road vistas no less frequently than every ½ mile, whether with a slight bend in the road, a median or other feature.

Roads, streets and alleys should be designed to:

Parallel and preserve existing fence lines, trees and stone walls wherever possible, to provide some sense of continuity with the historic land uses and patterns.

- a. Current traffic conditions on and future expansion plans for Routes 17 and 28 will further divide the community and prevent the formation and relevancy of an effective center.
- b. The cul-de-sac design of existing subdivisions in Bealeton limits pedestrian, bike and vehicular movement between subdivisions and within the community, and creates very poor traffic conditions along Routes 17 and 28.
- c. Bealeton is currently a bedroom community of houses, whose residents must look elsewhere for recreational, institutional and shopping needs.
- d. The quality of the potable water supply serving Bealeton needs to be improved.

STRENGTHS:

- a. Bealeton has excellent good quality and well-located public schools serving the community (Liberty High, Cedar Lee Middle and Grace Miller Elementary Schools).
 Maintenance of such educational quality will require matching residential growth with new school provision, subject to County fiscal capabilities and priorities.
- b. Bealeton has good growth potential for balanced residential and business growth because of excellent transportation links to employment centers in-Warrenton, Culpeper, Loudoun, Prince William, Stafford and Fairfax Counties.
- c. The community has historical roots, evidenced by older churches and the old rail depot.
- d. Bealeton has sewer availability, and should improve its water treatment. These water and sewer utilities will permit the community to maintain a defined edge with surrounding rural areas, since the perk potential of local soils is low.
- e. Existing north-south streams, and the associated wetlands and floodplains, provide the basis for clear neighborhood and community boundaries, excellent open space and a potential natural reserve/passive park network.

3. Land Use Plan

a. Town Center.

Overall Layout. The plan proposes a major north-south collector road, given an interim name of Church Road, parallel to and west of Marsh Road/Route 17. This street and Willow Drive, to the east, would permit local travel movements as an alternative to the through-traffic and/or congestion on Route 17. Commercial and institutional uses would front on Church Road and Willow Drive for the next 20 years. Once Route 17 through-traffic is rerouted elsewhere, the existing Marsh Road

PHOTOS

Given current traffic hazards and limited right-of-way on Route 28, improvements on this section of road should focus on key intersectional improvements for the safe and smooth movement of local automobile traffic. Pedestrian and bike paths on this road should be retrofitted through existing subdivisions and cross Bowens Run, via raised boardwalks, to the Town Center.

3. Paths Within Stream Valleys and Floodplains. Additionally, the stream valleys and floodplains dividing these neighborhoods have been historically unrecognized as a significant community asset. These resources should be redesigned as parks and systematically incorporated into a largely natural/passive park network with pedestrian paths and bike trails.

(See FIGURES 6-BE-1 & 2 of the Bealeton Service District)

4. Route 17 – 28 By-Pass. The Bealeton Community will achieve maturity only if long-term through-traffic on Route 17 bound to US Route 29/15 is allowed to reach its objective by some means other than through the Town Center. The proposed streets parallel to Route 17, Market and Church, should not serve as this regional bypass. Equally, Route 28, west of Route 17, will only function as a safe collector road if through traffic bound to Routes 29 and 17 reaches its objective by some other means.

This Plan proposes to re-direct Route 17 through-traffic to US Route 29/15 onto a limited access highway, on an alignment south of the Town Center, generally <u>south of</u> the Craig Run floodplain and south of the railroad right-of-way. The highway should reach US Route 29/15 in the vicinity of the existing intersection of Route 28. (See Figure 10-SF-1 Southern Fauquier Intermediate Range Regional Road Plan.)

b. Land Use and Development Statistics.

Table 6-BE-1 provides data concerning existing and developable land within the Bealeton Service District.

TABLE 6 – BE-- 1 BEALETON SERVICE DISTRICT DEVELOPMENT ACREAGES

Land Use Category	Developed acres	Undeveloped acres	Total acres
Town Center	20	55	75
Institutional / Office	0	66	66
Mixed Use	0	25	25
Flex Industrial	0	138	138
Residential High	48	0	48
Residential Medium	114	155	269
Residential Low	382	560	942
Total	564	999	1563

of moving traffic. Opal has not acquired as yet the reputation of a hazardous zone, but current conditions and future trends are not good.

A third transportation issue concerns the acreage of land currently planned for employment uses in Opal. A 1998 County commissioned study revealed that the 550 plus acres of land planned for commercial and employment uses could generate in excess of 71,600 two-way trips per day. Furthermore nearly 7,500 of these trips would occur in the afternoon peak hour. Since a road such as US Route 29/15 in Opal can carry 700 – 900 vehicles per hour, such traffic generation, if even partially realized, without expensive, multi lane and flyover road capacity improvements would effectively "lock" US Route 29/15 for extended periods of the day.

- e. <u>Utilities</u>. A public sewer line from Bealeton serves the northeast quadrant of the Routes 29-17 intersection. There is no public water service in Opal. However, the WSA has completed initial studies identifying areas where additional hydro-geologic and well pumping tests are needed to identify reliable and quality groundwater sources. Funding the completion of this study, and well development is essential. Basic data and the designated zones for public water supply are included in the *Groundwater Resource Study Results of Phase II*, *Opal Study Area* (prepared by Emery & Garrett Groundwater, Inc., March of 2000, for the Fauquier County Water & Sanitation Authority).
- f. Natural Resources. The Opal area lies within, if on the edge, of an old lakebed that extends south to Remington and east to Bealeton and beyond. Local soils in the area have poor perk potential, are very water retentive, and some possess very high shrinkswell qualities that will wreck_havoc on foundations not specifically designed for such conditions.

2. Opal Service District Vision Statement

VISION STATEMENT:

Opal will be an accommodating, pleasant and friendly place to take a break on the long drive between North Carolina and Washington D.C. Travelers will return once they also discover a community of great craftsmen located conveniently adjacent to commercial uses on US Route 29/15. designed to accommodate and serve regional through traffic on Route 17 and U.S. Route 29/15.

OPPORTUNITIES:

With traffic flows of 37,000 vehicles per day and growth of 3 - 4 % per year, Opal has the enviable characteristic of excellent regional location. Opal should build on this regional transportation asset and ensure that future travelers will continue to associate Opal as a place delivering safe access and high quality, attractive goods and services.

AREAS NEEDING SPECIAL FOCUS:

Opal has become a difficult, confusing and potentially unsafe place to drive because Opal's strip commercial "pads", lack inter-parcel connections, present multiple access points on US Route 29/15, encourage casual median crossing in the context of increasing traffic volume and speeds. These are characteristics that must be resolved, as a business area with such traffic safety issues courts financial problems.

STRENGTHS:

Landowners and merchants in Opal have a proven ability to deliver fine services at competitive prices. These will need to work together and with the Virginia Department of Transportation to build a coherent economic engine, with service roads and landscaping, coordinated and shared entrances / exits, a clear and effective community image of buildings and signs which convey a message that Opal is the place for travelers to stop, shop and recharge. The community has the creative and dynamic resources to re-tool, with state road investments being a critical element.

3. Land Use Plan

a. Overall Layout. The Plan proposes to remedy the central transportation issue for Opal with the construction of service roads, set back one lot deep, from US Route 29/15. Traffic needing to execute a leftward u-turn could use these service roads and cross US Route 29/15 at controlled/signalized intersections. These intersections would permit the closing of many median crossovers as the Plan is implemented. The Plan further proposes to locate land in the northwest quadrant for commercial and flex office industrial uses to capitalize on Opal's excellent location for local contractors and southbound travelers.

Land located in the northeast quadrant of the District, currently an uncoordinated mix of residential and industrial zones, would be developed as either as a novel "Live-Work" district for artisans or as a campus style mixed employment district or as a planned commercial-industrial land use. This land enclave of artisans would buffer residential areas along Clarkes Road. The Live Work district would offer travelers additional reasons to stop and shop at Opal.

Land located in the southeast quadrant of the District and to the north of the new Route 17 right-of-way would remain in employment use. Land to the south of the new alignment, along Fayettesville Road/Route 844, would remain in residential use.

b. <u>Transportation</u>. The Virginia Department of Transportation has acquired property along US Route 29/15, 1/3 mile south of the present intersection with Route 17 to construct a partial grade separated interchange. This improvement proposes to merge northbound Route 17 traffic on the existing road, thus mixing traffic accelerating onto US Route 29/15 into the very lanes that northbound US Route 29/15 travelers use to decelerate and exit into local commercial venues. This plan element opposes the VDOT proposal, and recommends that VDOT merge northbound traffic 1/3 mile to the south, at the location of the interchange flyover.

- c. <u>Parks</u>. The Plan designates a number of environmental areas within the Service District as passive parks for the enjoyment of those living in the District, with the expectation that Opal merchants will recognize their potential to provide travelers with picnic areas and a restful break.
- d. Accessory Sewer Service. Various Rural Agricultural (RA) zoned properties to the south of the Service District have potential as recreational facilities, such as swimming and tennis clubs, driving ranges, as well as traveler and vacation lodges and other hospitality uses. Development of compatible recreational uses such as these would be consistent with the overall traveler-oriented strategy of the Opal Plan. The County will entertain applications, from the owners of such RA zoned land, for the creation of an accessory sewer district, to the Opal Service District, to accommodate such transitional uses which meet all transportation, community and zoning requirements, but which cannot dispose of wastewater on site.

4. Overall Policy Guidelines for the Live-Work Zone

The Opal Plan presents an opportunity to create a new Live-Work zoning district with an objective to provide an affordable home/office/shop for self-employed professionals, craftsmen, and start-up businesses. The County has had a number of "neighbor" issues with home-occupation uses in regular residential zoning districts that the Live-Work zone would seek to resolve at the outset

a. Proximity and Impact of the Workplace. A workplace located immediately adjacent to a home can create a real hardship in terms of noises, vibrations, visitors and other associated nuisances. While the level of these nuisances might not be objectively more significant than a loud residential dishwasher, or a high pitched vacuum cleaner, the "working character" of such impacts – for example a rapid-fire nailing gun – can be disturbing. The new Live-Work district will seek to mitigate these effects by listing allowable non-residential uses – such as woodworking, crafts, sheet metal and stone fabrication and printing – proscribing obnoxious uses generating health hazards, and separating the residential and the employment uses on each lot, by locating the home at the front of the lot, and the office/workshop to the rear. The Live-Work district will further limit encroachment of employment uses into the residential portion of the lot with a pre-determined boundary. See attached drawing.

A zoning requirement that the lot owner occupying – or renting – the workplace at the back of the lot, should be resident at the front will further tend to reduce intolerable and in-appropriate offsite impacts.

- b. Storage. Nothing dispels the residential character of a neighborhood more quickly than storage yards filled with assorted materials, rusting tools and partially repaired vehicles. Though an additional cost, the Live-Work district will require that the storage of materials, tools and vehicles be enclosed.
 - c. Access and Parking. Workshops and businesses generate a rather different stream of vehicles, and at different times than a typical residence. Many homeowners may become upset with the sight of four or five working/older vehicles parked across the street from

5. Roadside Landscaping and Architectural Standards

Many travelers on Routes 15, 17 and 29 form an impression about Fauquier County based on the prospects afforded by these roads. Unfortunately, much of the commercial development alongside these arteries bears no relationship with the qualities of the built environment in the County. Fauquier has much more to offer travelers, who should be invited by the quality of their experience to linger, dine and visit the community. This Plan endorses the commencement of work by the Fauquier County Architectural Review Board to develop roadside landscaping and architectural guidelines for the County's major road corridors.

6. Land Use Acreage and Development Statistics

Table 6-OP-1 provides data concerning existing and developable land within the Opal Service District. The table assumes that non-residential land will be re-developed within the time frame of the Plan.

TABLE 6-OP-1 OPAL SERVICE DISTRICT DEVELOPMENT ACREAGES

Land Use Category	Developed acres	Undeveloped acres	Total acres
Commercial	0	133	133
Industrial	0	69	69
Flex Offfice-Ind.	0	60	60
Live Work / Flex Ind	0	106	106
Residential Low	50	18	68
Total	50	386	436

- e. <u>Boundary Adjustment. The land use map identifies an adjusted jurisdictional boundary</u> for Remington. The County wishes to adopt a policy of adjusting this boundary as development is approved and constructed adjacent to the Town.
- f. Residential. Development density within the residential neighborhoods of the Service District will continue the existing pattern of 1 3 dwellings per gross acre. While developing subdivisions, such as Lee's Glen and The Meadows may be completed as originally conceived, new development within the District should be designed according to the historic principles noted in General Design Principles.

4. Remington Land Uses

TABLE 6-RE-1 REMINGTON SERVICE DISTRICT DEVELOPMENT ACREAGE

Land Use Category	Developed acres	Undeveloped acres	Total acres
Commercial		26	26
Mixed Use		44	44
Industrial	30	93	123
Residential High	15	8	23
Residential Medium	11	31	42
Residential Low	186	942	1128
Total	242	1144	1386

5. Routes 17 - 28 By-pass

- a. Traffic projections on Routes 17 and 28 have encouraged the Virginia Department of Transportation to contemplate the creation of a grade-separated interchange at the intersection of Route 28 that would have devastating impacts on the planned Bealeton Town Center. The Bealeton Committee has proposed using the interchange moneys instead on the construction of a limited access By-Pass that would link Route 17 with US Route 29/15. This Plan proposes to redirect Route 17 through-traffic to US Route 29/15 onto a new limited access highway, generally along the Craig Run floodplain, to US Route 29/15, in the vicinity of the existing intersection of Route 28 such that this limited access By-pass shall have no intermediate entrances or exits between Routes 17 and 29.
 - b. Much engineering will be needed to determine actual alignment and construction. The County and the Town of Remington will conclude a mutually-binding agreement stating that all questions of road alignment, design, and function must be mutually agreeable before construction of this freeway is undertaken, and thereafter.

6. Linear Parks and Bikeways

The Town of Remington and the Remington Service District will form the heartland of a linear park and bikeway network. Figure 6 - RE - 3 illustrates the wide-ranging scope of this

- To supplement these efforts, the County support a VDOT request to acquire and schedule a full time "smart" trailer at strategic locations on Route 28. That trailer flashes motorist speeds, but VDOT needs to add a computer element that also records speeds. Such records would provide documented trends in vehicle speeds, and where the effective location of law enforcement should be located.
- If VDOT cannot provide one "smart" trailer for sufficient speed enforcement on the Route 28 corridor, then the. The County will needs to also support a VDOT request to purchasing a second "smart" trailer with a computer to record speeds and enforce lowered and safer speed limits on Route 17.
- To further the objective of traffic calming on Routes 17 and 28 the County will request the Sheriff's Office to enhance Deputy presence and monitoring of vehicle speeds on these roads.
- b. Special Route 28 Corridor Traffic Study. With increasing traffic volumes and limited state funding for the Route 28 corridor, recommend that the County request VDOT or a consultant, to complete a special corridor study as soon as possible. A careful assessment of various fixed object accidents along the entire corridor would determine the need to relocate poles or remove trees, which may be within the existing right-of-way. Another technique worth reviewing is he installation of grooved rumble strips either on the edge of the pavement or within the double yellow lines to deter off roadway accidents or illegal passing.
- c. Right-of-way Acquisition. VDOT should purchase additional right-of-way, and/or the County obtain through subdivision dedications, for short-term Route 28 improvements. Those improvements focus on additional left/right turn lanes or possible widening to 4-lanes in specific areas.
- b. Grants. The County School Board should seek Virginia Department of Motor Vehicle highway safety and mini grants for school sites located along any state highway.

EXHIBIT 10 – BE – 1 LEVEL OF SERVICE (LOS) ANALYSES

	CONDITION	AM LOS	PM LOS	COMMENTS
•	Existing 2001 Situation - 28/Oak Shade Road - 28/17 - 28/LHS	C 15.9 C 29.7 B 11.1	C 15.7 C 29.2 B 13.3	unsignalized signalized unsignalized
•	Future 2010 Situation - 28/Oak Shade Road - 28/17 - 28/LHS	E 35.7 D 46.6 B 13.3	D 31.7 D 50.1 C 19.0	unsignalized signalized unsignalized
•	Future 2020 Situation - 28/Oak Shade Road - 28/17 - 28/LHS	F 430.7 F 392.3 D 25.5	F 354.3 F 340.1 E 42.8	unsignalized signalized unsignalized

A Long-Range Transportation Network for Bealeton, Opal and Remington Service Districts

Bealeton's existing major roads are both the community's great asset and great liability. Traffic on Routes 17, 28, 29 is presently growing 3-4 % per year. Truck traffic represents 20 percent of this total. In the short term, such growth spurs economic development. Unfortunately, projected traffic counts in the high 50,000-70,000 vehicles per day in the year 2020 would compromise growth and reduce mobility within the community and with Remington, Midland and Opal.

Intermediate and long-range access plans are shown on the following pages. The intent of these plans is to preserve Bealeton and Remington as distinct, vibrant communities. These graphics present an at grade intersection at Route 28/17, with traffic diverted to the south of Bealeton from Route 17 to US 29/15 on a limited access "by-pass". The transportation network represented here would be one that could be expected to be in place over a 50-year planning period, and will require, at a minimum, review and adjustment very 5-years. This long-range access plan offers ways to resolve those issues, but more detailed review, planning and engineering will be required. Discussions regarding Virginia Rail Express service are included in the Bealeton Land Use Plan section.

Over the long-term, the Plan also proposes a major bypass road for Bealeton, which would initially use existing Route 805 as much as possible, from the vicinity of Meetze Road and Route 28 to Route 17. The reworked Route 28 transportation corridor would divert regional through-traffic and permit conversion of existing Route 17 and 28 within Bealeton to roads of "business" importance. In the first phase, Route 28-805 would be rebuilt as a 2 lane, 'restricted access' minor arterial road (access to other roads only) with appropriate left turn holding lanes. In a second phase, between 2020 and 2050, the proposed Bealeton Bypass between Routes 17 and 29 would be extended to the east as a 'limited access' road about half way to the Airport, and thereafter as a four lane minor arterial to Meetze Road. This minor arterial would then tie into Route 28 through Calverton and Catlett. See Figure 10-SF-1 and 2.

The plan anticipates funding of these bypasses will be a challenge, since funding would need to be obtained through multiple sources; for example, VDOT, private development, and the <u>98%</u> Federal and State Airport grant program to <u>assist</u> the Warrenton/Fauquier County Airport expansion.

Buttressing these diversion alternatives, the plan proposes to strengthening and connecting local collector roads. James Madison/Route 15/29 business north of Remington and Route 656 south of the town would be improved and re-aligned to permit easier traffic flow with Remington. Bealeton Road/Route 805 would be similarly improved and re-aligned to enhance flow with Midland. A third major collector road would describe an arc extending from Schoolhouse Drive/Route 661 to Weaverville Road/Route 662 and back to Marsh Road/Route 17. Ultimately, this arc would continue to the east and south and connect with Bealeton Road/Route 805.